

**HALEY &  
ALDRICH**

**TECHNICAL MEMORANDUM  
FORMER C-6 FACILITY  
IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

**UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS**

*LBO COPY*

**TECHNICAL MEMORANDUM  
FORMER C-6 FACILITY  
IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

**by**

**Haley & Aldrich, Inc.  
San Diego, California**

**for**

**Boeing Realty Corporation  
Long Beach, California 90846**

**File No. 27285-001  
March 2001**



**BOEING REALTY CORPORATION  
FORMER C-6 FACILITY  
LOS ANGELES, CALIFORNIA**

**TECHNICAL MEMORANDUM**

**IMPORT SOIL EVALUATION  
USE OF SOIL SOURCES I AND J AS IMPORT TO PARCEL C**

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**To:** Mr. Brian Mossman  
Boeing Realty Corporation  
3760 Kilroy Airport Way, Suite 500  
Long Beach, CA 90806

**From:** Haley & Aldrich, Inc.

**Date:** March 30, 2001

**Re:** Import Soil Evaluation, Use of Soil Sources I and J as Import to Parcel C, Boeing Realty Corporation, Former C-6 Facility – Parcel C, Los Angeles, California

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Haley & Aldrich, Inc. is herein providing this technical memorandum to summarize our recommendations regarding use of two identified potential import soil sources, herein referred to as Sources I and J, as import to Parcel C of the Boeing Realty Corporation's (BRC's) Former C-6 Facility in Los Angeles, California (subject parcel). Based on our review of the information provided for the Sources I and J import soils, it is recommended that these soils be used as fill soil on Parcel C.

**OVERVIEW/PURPOSE**

Two sources of soil, totaling up to approximately 40,000 cubic yards, have been identified as potential import soil for use on Parcel C. Kennedy Jenks Consultants (K/J) collected two soil samples from Source I and three soil samples from Source J and tested these samples in accordance with the protocol presented in the December 11, 2000 Import Soil Screening Program Plan prepared for Parcel C. This plan has been used as guidance to evaluate import soil from "offsite" sources. The criteria presented in the plan were then compared to the analytical results of the soil samples. The purpose of this technical memorandum is to present a summary of the import soil evaluation of the Sources I and J soils and to provide recommendations for use as import for Parcel C.

**LOCATION OF PROPOSED SOURCES I AND J IMPORT SOIL**

The Source I potential import soil comprises approximately 12,000 cubic yards. Source I soil originated from the Caltrans right-of-way at the northbound Interstate 405 on-ramp at Imperial Highway in Los Angeles, California. These soils were excavated as part of freeway construction.

The Source J potential import soil comprises approximately 28,000 cubic yards. Source J soil originated from the Caltrans right-of-way at the northbound Interstate 405 off-ramp at El Segundo Boulevard in Los Angeles, California. These soils were also excavated as part of freeway construction.

## COMPARISON OF ANALYTICAL RESULTS TO IMPORT SOIL GUIDANCE CRITERIA

The laboratory report for the soil samples collected from the subject potential import soils is presented as Attachment 1. Each sample was tested for metals, and various organic chemicals, including total petroleum hydrocarbons, polynuclear aromatic hydrocarbons, and volatile organic hydrocarbons. A review of the laboratory results indicates that the organic chemical results are within both the site-specific import soil evaluation criteria presented in the December 11, 2000 Import Soil Screening Program Plan. A summary of the detected organic compounds and their associated site-specific soil import criteria are presented in Table 1. The remaining organic compounds on the analyte list were not detected, and their detection limits are consistent with the soil import criteria.

**Table 1. Summary of Detected Organic Results and Associated Site-Specific Import Soil Criteria**

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)
SOURCE I-1-030901	Total petroleum hydrocarbons (C24-C39)	190	< 10 – 5,000
SOURCE I-1-030901	Total petroleum hydrocarbons (C40+)	120	< 10 – 5,000
SOURCE I-1-030901	Total petroleum hydrocarbons (Total Carbon Chain)	340	< 10 – 5,000
SOURCE I-1-030901	Benzo(a)anthracene	0.350	< 0.016 – 11.4
SOURCE I-1-030901	Benzo(a)pyrene	0.320	< 0.004 – 1.14
SOURCE I-1-030901	Fluoranthene	1.100	< 0.020 – 6,970
SOURCE I-1-030901	Pyrene	0.020	< 0.040 – 2,350
SOURCE J-1-030901	Total petroleum hydrocarbons (C28-C35)	22	< 10 – 5,000
SOURCE J-1-030901	Total petroleum hydrocarbons (Total Carbon Chain)	41	< 10 – 5,000
SOURCE J-2-030901	Total petroleum hydrocarbons (C32-C39)	27	< 10 – 5,000
SOURCE J-2-030901	Total petroleum hydrocarbons (Total Carbon Chain)	56	< 10 – 5,000
SOURCE J-3-030901	Total petroleum hydrocarbons (C28-C35)	30	< 10 – 5,000

Several of the metals results are greater than the site-specific criteria, but are within the reported southern California background literature value criteria. A summary of these metals results is presented in Table 2. The remaining metals on the analyte list are consistent with the import soil criteria.

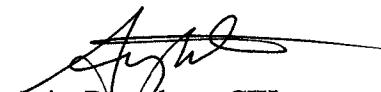
**Table 2. Summary of Metals Results Greater Than Site-Specific Import Soil Criteria and Associated Site-Specific and Southern California Import Soil Criteria**

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)	Maximum Regional (Southern California) Background Criterion (mg/kg)
Source-I-1-030901	Lead	13	8	189.4
	Copper	22.7	20	54
Source-J-1-030901	Lead	10.7	8	189.4
	Vanadium	42.9	38	84.8
	Copper	31.3	20	54
Source-J-2-030901	Lead	19.2	8	189.4
	Nickel	18.2	18	28.2
	Beryllium	0.51	0.5	1.2
	Vanadium	45.5	38	84.8
	Zinc	67.1	64	247
	Copper	28.8	20	54
Source-J-3-030901	Lead	17.2	8	189.4
	Nickel	19.2	18	28.2
	Beryllium	0.55	0.5	1.2
	Vanadium	48.3	38	84.8
	Zinc	64.9	64	247
	Copper	33.2	20	54

#### **RECOMMENDATIONS FOR USE AS IMPORT SOIL**

It is recommended that the subject approximately 40,000 cubic yards of soil comprising Sources I and J be used as fill soil on Parcel C. The reported soil concentrations for organic compounds are consistent with the site-specific criteria, and those for inorganic chemicals are consistent with the site-specific and/or southern California background criteria. These background values are considered to be representative of the general geographic region from which the Sources I and J import soils originated, and are not considered to be a result of chemical contamination.

Sincerely yours,  
HALEY & ALDRICH, INC.

  
Anita Broughton, CIH  
Risk Assessment Task Manager

Scott Zachary  
Project Manager



Attachments:  
Appendix A    Laboratory Report

Appendix A

SEVERN  
TRENT  
SERVICES

March 15, 2001

STL LOT NUMBER: E1C090309  
PO/CONTRACT: 05160-SEV002

Jay Knight  
Kennedy/Jenks Consultants  
2151 Michelson Drive  
Suite 100  
Irvine, CA 92612

**STL Los Angeles**  
1721 South Grand Avenue  
Santa Ana, CA 92705-4808  
  
Tel: 714 258 8610  
Fax: 714 258 0921  
[www.stl-inc.com](http://www.stl-inc.com)

Dear Mr. Knight,

This report contains the analytical results for the six samples received under chain of custody by STL Los Angeles on March 9, 2001. These samples are associated with your BRC former C-6 Torrance Harbor Gateway project.

Note that the 8310 analysis was performed at Del Mar Analytical. See attached report for any related anomalies. All applicable quality control procedures meet method-specified acceptance criteria. See Project Receipt Checklist for container temperature and conditions. Temperature reading beyond 2 to 6 degrees Celsius is considered not within acceptable criteria unless otherwise noted such as limited transit time from field and test requested. Any matrix related anomaly is footnoted within the report.

STL Los Angeles certifies that the test performed at our facility in this report meet all the requirements of NELAC certification number 01118CA. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at 714-258-8610.

Sincerely,



Diane Suzuki  
Project Manager

cc: Project File

This report contains 000083 pages.



Committed To Your Success

## **SEVERN TRENT LABORATORIES**

## **CHAIN OF CUSTODY RECORD**

No. 203086

000002

RUSH TURNAROUND MAY REQUIRE SURCHARGE

BOF-C6-0211806



# EXECUTIVE SUMMARY - Detection Highlights

**E1C090309**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>Source-J-1-030901 03/09/01 10:00 001</b>				
C28-C31	11	10	mg/kg	SW846 8015B
C32-C35	11	10	mg/kg	SW846 8015B
Total Carbon Chain Range	41	10	mg/kg	SW846 8015B
Mercury	0.064 B	0.10	mg/kg	SW846 7471A
Aluminum	13300	20.0	mg/kg	SW846 6010B
Arsenic	5.7	1.0	mg/kg	SW846 6010B
Barium	99.4	2.0	mg/kg	SW846 6010B
Beryllium	0.48 B	0.50	mg/kg	SW846 6010B
Cobalt	8.0	5.0	mg/kg	SW846 6010B
Chromium	26.3	1.0	mg/kg	SW846 6010B
Copper	31.3	2.5	mg/kg	SW846 6010B
Molybdenum	0.97 B	4.0	mg/kg	SW846 6010B
Nickel	17.9	4.0	mg/kg	SW846 6010B
Lead	10.7	0.50	mg/kg	SW846 6010B
Thallium	1.3	1.0	mg/kg	SW846 6010B
Vanadium	42.9	5.0	mg/kg	SW846 6010B
Zinc	60.5	2.0	mg/kg	SW846 6010B
<b>Source-J-2-030901 03/09/01 10:10 002</b>				
C24-C27	6.0 J	10	mg/kg	SW846 8015B
C28-C31	9.5 J	10	mg/kg	SW846 8015B
C32-C35	12	10	mg/kg	SW846 8015B
C36-C39	15	10	mg/kg	SW846 8015B
C40+	7.9 J	10	mg/kg	SW846 8015B
Total Carbon Chain Range	56	10	mg/kg	SW846 8015B
Mercury	0.045 B	0.10	mg/kg	SW846 7471A
Aluminum	14000	20.0	mg/kg	SW846 6010B
Arsenic	5.5	1.0	mg/kg	SW846 6010B
Barium	104	2.0	mg/kg	SW846 6010B
Beryllium	0.51	0.50	mg/kg	SW846 6010B
Cobalt	7.4	5.0	mg/kg	SW846 6010B
Chromium	26.7	1.0	mg/kg	SW846 6010B
Copper	28.8	2.5	mg/kg	SW846 6010B
Molybdenum	1.1 B	4.0	mg/kg	SW846 6010B
Nickel	18.2	4.0	mg/kg	SW846 6010B
Lead	19.2	0.50	mg/kg	SW846 6010B
Antimony	0.58 B	6.0	mg/kg	SW846 6010B
Thallium	0.85 B	1.0	mg/kg	SW846 6010B
Vanadium	45.5	5.0	mg/kg	SW846 6010B
Zinc	67.1	2.0	mg/kg	SW846 6010B

(Continued on next page)

**000004**

# EXECUTIVE SUMMARY - Detection Highlights

E1C090309

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
<b>Source-J-3-030901 03/09/01 10:15 003</b>				
C28-C31	7.7 J	10	mg/kg	SW846 8015B
C32-C35	8.3 J	10	mg/kg	SW846 8015B
C36-C39	5.3 J	10	mg/kg	SW846 8015B
Total Carbon Chain Range	30	10	mg/kg	SW846 8015B
Mercury	0.031 B	0.10	mg/kg	SW846 7471A
Aluminum	15100	20.0	mg/kg	SW846 6010B
Arsenic	6.6	1.0	mg/kg	SW846 6010B
Barium	106	2.0	mg/kg	SW846 6010B
Beryllium	0.55	0.50	mg/kg	SW846 6010B
Cobalt	8.2	5.0	mg/kg	SW846 6010B
Chromium	27.4	1.0	mg/kg	SW846 6010B
Copper	33.2	2.5	mg/kg	SW846 6010B
Molybdenum	1.2 B	4.0	mg/kg	SW846 6010B
Nickel	19.2	4.0	mg/kg	SW846 6010B
Lead	17.2	0.50	mg/kg	SW846 6010B
Antimony	0.26 B	6.0	mg/kg	SW846 6010B
Thallium	0.98 B	1.0	mg/kg	SW846 6010B
Vanadium	48.3	5.0	mg/kg	SW846 6010B
Zinc	64.9	2.0	mg/kg	SW846 6010B

**Source-I-1-030901 03/09/01 11:15 004**

C20-C23	9.8 J	10	mg/kg	SW846 8015B
C24-C27	22	10	mg/kg	SW846 8015B
C28-C31	41	10	mg/kg	SW846 8015B
C32-C35	62	10	mg/kg	SW846 8015B
C36-C39	65	10	mg/kg	SW846 8015B
C40+	120	10	mg/kg	SW846 8015B
Total Carbon Chain Range	340	10	mg/kg	SW846 8015B
Mercury	0.062 B	0.10	mg/kg	SW846 7471A
Aluminum	9310	20.0	mg/kg	SW846 6010B
Arsenic	4.4	1.0	mg/kg	SW846 6010B
Barium	80.9	2.0	mg/kg	SW846 6010B
Beryllium	0.33 B	0.50	mg/kg	SW846 6010B
Cobalt	5.0	5.0	mg/kg	SW846 6010B
Chromium	16.4	1.0	mg/kg	SW846 6010B
Copper	22.7	2.5	mg/kg	SW846 6010B
Molybdenum	0.62 B	4.0	mg/kg	SW846 6010B
Nickel	10.4	4.0	mg/kg	SW846 6010B
Lead	13.0	0.50	mg/kg	SW846 6010B
Vanadium	27.8	5.0	mg/kg	SW846 6010B
Zinc	55.1	2.0	mg/kg	SW846 6010B

(Continued on next page)

**000005**

# **EXECUTIVE SUMMARY - Detection Highlights**

**E1C090309**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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**Source-I-2-030901 03/09/01 11:20 005**

Mercury	0.026 B	0.10	mg/kg	SW846 7471A
Vanadium	24.3	5.0	mg/kg	SW846 6010B
Zinc	26.7	2.0	mg/kg	SW846 6010B
Aluminum	7460	20.0	mg/kg	SW846 6010B
Arsenic	1.4	1.0	mg/kg	SW846 6010B
Barium	57.8	2.0	mg/kg	SW846 6010B
Beryllium	0.25 B	0.50	mg/kg	SW846 6010B
Cobalt	3.6 B	5.0	mg/kg	SW846 6010B
Chromium	7.6	1.0	mg/kg	SW846 6010B
Copper	7.5	2.5	mg/kg	SW846 6010B
Nickel	5.1	4.0	mg/kg	SW846 6010B
Lead	1.9	0.50	mg/kg	SW846 6010B
Thallium	0.52 B	1.0	mg/kg	SW846 6010B

**Build -2-AE-13-030901-1 03/09/01 08:00 006**

Aluminum	24800	20.0	mg/kg	SW846 6010B
Arsenic	5.2	1.0	mg/kg	SW846 6010B
Barium	168	2.0	mg/kg	SW846 6010B
Beryllium	0.82	0.50	mg/kg	SW846 6010B
Cobalt	12.5	5.0	mg/kg	SW846 6010B
Chromium	29.1	1.0	mg/kg	SW846 6010B
Copper	39.9	2.5	mg/kg	SW846 6010B
Molybdenum	0.49 B	4.0	mg/kg	SW846 6010B
Nickel	20.6	4.0	mg/kg	SW846 6010B
Lead	6.3	0.50	mg/kg	SW846 6010B
Thallium	0.91 B	1.0	mg/kg	SW846 6010B
Vanadium	58.1	5.0	mg/kg	SW846 6010B
Zinc	71.2	2.0	mg/kg	SW846 6010B

**000006**

## METHODS SUMMARY

E1C090309

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Extractable Petroleum Hydrocarbons	SW846 8015B	SANA AUTO-SHAKE
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Volatile Organics by GC/MS	SW846 8260B	SW846 5030
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5030

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

000007

BOE-C6-0211811

# SAMPLE SUMMARY

E1C090309

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
DW7TV	001	Source-J-1-030901	03/09/01	10:00
DW7T4	002	Source-J-2-030901	03/09/01	10:10
DW7T7	003	Source-J-3-030901	03/09/01	10:15
DW7VC	004	Source-I-1-030901	03/09/01	11:15
DW7VD	005	Source-I-2-030901	03/09/01	11:20
DW7VF	006	Build -2-AE-13-030901-1	03/09/01	08:00

## NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

000008

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-001    Work Order #....: DW7TV1AC    Matrix.....: SOLID  
 Date Sampled...: 03/09/01 10:00    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01    Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498    Analysis Time...: 14:20  
 Dilution Factor: 1  
 Analyst ID.....: 356074    Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	11	10	mg/kg	5.0
C32-C35	11	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	41	10	mg/kg	5.0
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Benzo (a)pyrene	82		(60 - 130)	

000009

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

GC Volatiles

Lot-Sample #....: E1C090309-001 Work Order #....: DW7TV1AD Matrix.....: SOLID  
Date Sampled....: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 13:21  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
<hr/>				
SURROGATE	PERCENT	RECOVERY		
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS		
	83	(60 - 130)		

000010

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-001    Work Order #....: DW7TV1AA    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:00    Date Received...: 03/09/01 15:35 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 16:10  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

(Continued on next page)

**000011**

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-001 Work Order #....: DW7TV1AA Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>	<u>PERCENT</u>	RECOVERY		
		<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	104	(70 - 130)		
1,2-Dichloroethane-d4	100	(60 - 140)		
Toluene-d8	106	(70 - 130)		

000012

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-002    Work Order #....: DW7T41AE    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:10    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01              Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498              Analysis Time...: 14:59  
 Dilution Factor: 1  
 Analyst ID.....: 356074              Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	6.0 J	10	mg/kg	5.0
C28-C31	9.5 J	10	mg/kg	5.0
C32-C35	12	10	mg/kg	5.0
C36-C39	15	10	mg/kg	5.0
C40+	7.9 J	10	mg/kg	5.0
Total Carbon Chain Range	56	10	mg/kg	5.0
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Benzo(a)pyrene	83		(60 - 130)	

NOTE (S) :

J Estimated result. Result is less than RL.

000013

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

GC Volatiles

Lot-Sample #....: E1C090309-002 Work Order #....: DW7T41AF Matrix.....: SOLID  
Date Sampled....: 03/09/01 10:10 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 13:50  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE	PERCENT	RECOVERY		
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS		
	83	(60 - 130)		

000014

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-002 Work Order #....: DW7T41AD Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:10 Date Received...: 03/09/01 15:35 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350 Analysis Time...: 16:43  
 Dilution Factor: 1  
 Analyst ID.....: 999998 Instrument ID...: MSG  
 Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000015

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## GC/MS Volatiles

Lot-Sample #...: E1C090309-002 Work Order #...: DW7T41AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
Bromofluorobenzene		99	(70 - 130)	
1,2-Dichloroethane-d4		102	(60 - 140)	
Toluene-d8		106	(70 - 130)	

000016

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-003    Work Order #....: DW7T71AE    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01    Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498    Analysis Time...: 15:38  
 Dilution Factor: 1  
 Analyst ID.....: 356074    Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	7.7 J	10	mg/kg	5.0
C32-C35	8.3 J	10	mg/kg	5.0
C36-C39	5.3 J	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	30	10	mg/kg	5.0
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Benzo(a)pyrene	83		(60 - 130)	

NOTE (S) :

J Estimated result. Result is less than RL.

000017

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

GC Volatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AF Matrix.....: SOLID  
Date Sampled...: 03/09/01 10:15 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 14:18  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE	PERCENT	RECOVERY		
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS		
	84	(60 - 130)		

000018

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-003    Work Order #....: DW7T71AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 10:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 17:16  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromoform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000019

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-003 Work Order #....: DW7T71AD Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	105		(70 - 130)	
1,2-Dichloroethane-d4	105		(60 - 140)	
Toluene-d8	108		(70 - 130)	

000020

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-004    Work Order #....: DW7VC1AE    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01              Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498              Analysis Time...: 16:17  
 Dilution Factor: 1  
 Analyst ID.....: 356074              Instrument ID...: G03  
 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>REPORTING</u>			
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	9.8 J	10	mg/kg	5.0
C24-C27	22	10	mg/kg	5.0
C28-C31	41	10	mg/kg	5.0
C32-C35	62	10	mg/kg	5.0
C36-C39	65	10	mg/kg	5.0
C40+	120	10	mg/kg	5.0
Total Carbon Chain Range	340	10	mg/kg	5.0
<u>SURROGATE</u>				
Benzo(a)pyrene		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
		80	(60 - 130)	

NOTE (S) :

J Estimated result. Result is less than RL.

000021

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

GC Volatiles

Lot-Sample #....: E1C090309-004    Work Order #....: DW7VC1AF    Matrix.....: SOLID  
Date Sampled....: 03/09/01 11:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1072196  
Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
Prep Batch #....: 1072404    Analysis Time...: 14:47  
Dilution Factor: 1  
Analyst ID.....: 001464    Instrument ID...: G16  
                    Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
SURROGATE				
a,a,a-Trifluorotoluene (TFT)	PERCENT RECOVERY	RECOVERY LIMITS	(60 - 130)	

000022

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-004    Work Order #....: DW7VC1AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:15    Date Received...: 03/09/01 15:35    MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 17:49  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000023

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-004 Work Order #....: DW7VC1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
 SURROGATE		PERCENT RECOVERY	RECOVERY LIMITS	
Bromofluorobenzene	110		(70 - 130)	
1,2-Dichloroethane-d4	110		(60 - 140)	
Toluene-d8	115		(70 - 130)	

000024

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC Semivolatiles

Lot-Sample #....: E1C090309-005    Work Order #....: DW7VD1AE    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01    Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498    Analysis Time...: 17:35  
 Dilution Factor: 1  
 Analyst ID.....: 356074    Instrument ID...: G03  
 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>REPORTING</u>			
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	ND	10	mg/kg	5.0
C32-C35	ND	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	ND	10	mg/kg	5.0
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>		
	<u>RECOVERY</u>	<u>LIMITS</u>		
Benzo(a)pyrene	96	(60 - 130)		

000025

**KENNEDY/JENKS CONSULTANTS**

**Client Sample ID: Source-I-2-030901**

**GC Volatiles**

Lot-Sample #....: E1C090309-005    Work Order #....: DW7VD1AF    Matrix.....: SOLID  
Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35    MS Run #.....: 1072196  
Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
Prep Batch #....: 1072404    Analysis Time...: 15:15  
Dilution Factor: 1  
Analyst ID.....: 001464    Instrument ID...: G16  
Method.....: SW846 8015B

<u>PARAMETER</u>	REPORTING			
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
C6-C8	ND	1.0	mg/kg	0.10
<u>SURROGATE</u>	<u>PERCENT</u>	RECOVERY		
	<u>RECOVERY</u>	<u>LIMITS</u>	(60 - 130)	
a,a,a-Trifluorotoluene (TFT)	85			

**000026**

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-005    Work Order #....: DW7VD1AD    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35    MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 18:22  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000027

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## GC/MS Volatiles

Lot-Sample #....: E1C090309-005 Work Order #....: DW7VD1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
		(70 - 130)	(60 - 140)	(70 - 130)
Bromofluorobenzene	97			
1,2-Dichloroethane-d4	93			
Toluene-d8	109			

000028

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-001

Matrix.....: SOLID

Date Sampled...: 03/09/01 10:00 Date Received...: 03/09/01 15:35

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Prep Batch #....:	1069112						
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AT	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	003119	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10	
Aluminum	13300	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AE	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0	
Arsenic	5.7	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AG	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40	
Barium	99.4	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AH	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10	
Beryllium	0.48 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AJ	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050	
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AK	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050	
Cobalt	8.0	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AL	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10	
Chromium	26.3	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AX	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10	
Copper	31.3	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7TV1AM	
		Dilution Factor: 1		Analysis Time...: 17:56	Analyst ID.....:	0031194	
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40	

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000033

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-001

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ORDER #
		LIMIT	UNITS					
Molybdenum	0.97 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AP	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Nickel	17.9	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AQ	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Lead	10.7	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AN	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Antimony	ND	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AF	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AR	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.40	
Thallium	1.3	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AU	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.50	
Vanadium	42.9	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AV	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.10	
Zinc	60.5	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7TV1AW	
		Dilution Factor: 1			Analysis Time...: 17:56		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 1.0	
Prep Batch #....:	1069113							
Mercury	0.064 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7TV1AO	
		Dilution Factor: 1			Analysis Time...: 15:12		Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016		MDL.....: 0.020	

NOTE(S) :

B Estimated result. Result is less than RL.

000034

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-002

Date Sampled...: 03/09/01 10:10 Date Received...: 03/09/01 15:35

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....:	1069112					
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AV
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	003119
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Aluminum	14000	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AG
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0
Arsenic	5.5	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AJ
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40
Barium	104	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AK
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Beryllium	0.51	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AL
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AM
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cobalt	7.4	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AN
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Chromium	26.7	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41A1
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Copper	28.8	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7T41AP
		Dilution Factor: 1		Analysis Time...: 18:04	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40

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## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-2-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-002

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ORDER #
		LIMIT	UNITS					
Molybdenum	1.1 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AR	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.30		
Nickel	18.2	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AT	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.30		
Lead	19.2	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AQ	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.30		
Antimony	0.58 B	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AH	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.20		
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AU	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.40		
Thallium	0.85 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AW	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.50		
Vanadium	45.5	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AX	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 0.10		
Zinc	67.1	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T41AO	
		Dilution Factor: 1		Analysis Time...: 18:04		Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234		MDL.....: 1.0		
Prep Batch #....:	1069113							
Mercury	0.045 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7T41AA	
		Dilution Factor: 1		Analysis Time...: 15:14		Analyst ID.....: 0210884		
		Instrument ID...: M04		MS Run #.....: 1069016		MDL.....: 0.020		

## NOTE(S) :

B Estimated result. Result is less than RL.

000036

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-003

Matrix.....: SOLID

Date Sampled...: 03/09/01 10:15 Date Received..: 03/09/01 15:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 1069112</b>						
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AV
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	003119
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.10
Aluminum	15100	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AG
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 8.0
Arsenic	6.6	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AJ
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.40
Barium	106	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AK
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.10
Beryllium	0.55	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AL
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AM
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.050
Cobalt	8.2	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AN
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.10
Chromium	27.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71A1
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.10
Copper	33.2	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7T71AP
		Dilution Factor: 1		Analysis Time...: 18:13	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....	: 0.40

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## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-J-3-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-003

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ORDER #
		LIMIT	UNITS					
Molybdenum	1.2 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AR	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Nickel	19.2	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AT	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Lead	17.2	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AQ	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.30	
Antimony	0.26 B	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AH	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AU	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.40	
Thallium	0.98 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AW	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.50	
Vanadium	48.3	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71AX	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 0.10	
Zinc	64.9	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7T71A0	
		Dilution Factor: 1			Analysis Time...: 18:13		Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234		MDL.....: 1.0	
Prep Batch #....:	1069113							
Mercury	0.031 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7T71AA	
		Dilution Factor: 1			Analysis Time...: 15:15		Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016		MDL.....: 0.020	

**NOTE(S) :**

B Estimated result. Result is less than RL.

000038

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-004

Matrix.....: SOLID

Date Sampled....: 03/09/01 11:15 Date Received...: 03/09/01 15:35

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #....:	1069112					
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AV
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Aluminum	9310	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AG
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0
Arsenic	4.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AJ
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40
Barium	80.9	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AK
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Beryllium	0.33 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AL
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AM
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cobalt	5.0	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AN
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Chromium	16.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AI
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Copper	22.7	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AP
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40

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000039

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-1-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-004

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Molybdenum	0.62 B	4.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AR	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.30		
Nickel	10.4	4.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AT	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.30		
Lead	13.0	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AQ	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.30		
Antimony	ND	6.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AH	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.20		
Selenium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AU	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.40		
Thallium	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AW	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.50		
Vanadium	27.8	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1AX	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 0.10		
Zinc	55.1	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VC1A0	
		Dilution Factor: 1		Analysis Time...: 18:21	Analyst ID.....: 0031194		
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....: 1.0		
Prep Batch #....: 1069113							
Mercury	0.062 B	0.10	mg/kg	SW846 7471A	03/13/01	DW7VC1AA	
		Dilution Factor: 1		Analysis Time...: 15:17	Analyst ID.....: 0210884		
		Instrument ID...: M04		MS Run #.....: 1069016	MDL.....: 0.020		

## NOTE(S) :

B Estimated result. Result is less than RL.

000040

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

**TOTAL Metals**

Lot-Sample #....: E1C090309-005                      Matrix.....: SOLID  
 Date Sampled....: 03/09/01 11:20    Date Received...: 03/09/01 15:35

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....:	1069112					
Vanadium	24.3	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AX
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Zinc	26.7	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1A0
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	1.0
Silver	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AV
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Aluminum	7460	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AG
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	8.0
Arsenic	1.4	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AJ
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.40
Barium	57.8	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AK
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10
Beryllium	0.25 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AL
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AM
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.050
Cobalt	3.6 B	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW7VD1AN
		Dilution Factor: 1		Analysis Time...: 18:29	Analyst ID.....:	0031194
		Instrument ID...: M01		MS Run #.....: 1072234	MDL.....:	0.10

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**000041**

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Source-I-2-030901

## TOTAL Metals

Lot-Sample #....: E1C090309-005

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Chromium	7.6	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1A1
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.10	
Copper	7.5	2.5	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AP
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.40	
Molybdenum	ND	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AR
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Nickel	5.1	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AT
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Lead	1.9	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AQ
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30	
Antimony	ND	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AH
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.20	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AU
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.40	
Thallium	0.52 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VD1AW
		Dilution Factor: 1			Analysis Time...: 18:29	Analyst ID.....: 0031194	
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.50	
Prep Batch #....:	1069113						
Mercury	0.026 B	0.10	mg/kg		SW846 7471A	03/13/01	DW7VD1AA
		Dilution Factor: 1			Analysis Time...: 15:19	Analyst ID.....: 0210884	
		Instrument ID...: M04			MS Run #.....: 1069016	MDL.....: 0.020	

NOTE(S) :

B Estimated result. Result is less than RL.

000042

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC Semivolatiles

Lot-Sample #....: E1C090309-006    Work Order #....: DW7VF1AC    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 08:00    Date Received...: 03/09/01 15:35    MS Run #.....: 1071274  
 Prep Date.....: 03/12/01    Analysis Date...: 03/14/01  
 Prep Batch #....: 1071498    Analysis Time...: 18:14  
 Dilution Factor: 1  
 Analyst ID.....: 356074    Instrument ID...: G03  
 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	ND	10	mg/kg	5.0
C28-C31	ND	10	mg/kg	5.0
C32-C35	ND	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	ND	10	mg/kg	5.0
SURROGATE	PERCENT	RECOVERY		
		RECOVERY	LIMITS	
Benzo(a)pyrene	104	(60 - 130)		

000029

KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

GC Volatiles

Lot-Sample #....: E1C090309-006 Work Order #....: DW7VF1AD Matrix.....: SOLID  
Date Sampled....: 03/09/01 08:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01 Analysis Date...: 03/12/01  
Prep Batch #....: 1072404 Analysis Time...: 15:44  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G16  
Method.....: SW846 8015B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10
<u>SURROGATE</u>				
a,a,a-Trifluorotoluene (TFT)	PERCENT RECOVERY	RECOVERY LIMITS	(60 - 130)	

000030

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC/MS Volatiles

Lot-Sample #....: E1C090309-006    Work Order #....: DW7VF1AA    Matrix.....: SOLID  
 Date Sampled....: 03/09/01 08:00    Date Received...: 03/09/01 15:35 MS Run #.....: 1072160  
 Prep Date.....: 03/12/01    Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350    Analysis Time...: 18:55  
 Dilution Factor: 1  
 Analyst ID.....: 999998    Instrument ID...: MSG  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorodifluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromoform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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000031

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## GC/MS Volatiles

Lot-Sample #....: E1C090309-006 Work Order #....: DW7VF1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0
 SURROGATE		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
Bromofluorobenzene	101		(70 - 130)	
1,2-Dichloroethane-d4	104		(60 - 140)	
Toluene-d8	111		(70 - 130)	

000032

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## TOTAL Metals

Lot-Sample #....: E1C090309-006

Matrix.....: SOLID

Date Sampled...: 03/09/01 08:00 Date Received..: 03/09/01 15:35

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Prep Batch #....:	1069112						
Silver	ND	1.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 003119	03/10-03/13/01 DW7VF1AT
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.10	
		Instrument ID...: M01					
Aluminum	24800	20.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AE
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 8.0	
		Instrument ID...: M01					
Arsenic	5.2	1.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AG
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.40	
		Instrument ID...: M01					
Barium	168	2.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AH
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.10	
		Instrument ID...: M01					
Beryllium	0.82	0.50	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AJ
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.050	
		Instrument ID...: M01					
Cadmium	ND	0.50	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AK
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.050	
		Instrument ID...: M01					
Cobalt	12.5	5.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AL
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.10	
		Instrument ID...: M01					
Chromium	29.1	1.0	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AX
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.10	
		Instrument ID...: M01					
Copper	39.9	2.5	mg/kg	SW846 6010B	Analysis Time...: 18:38	Analyst ID.....: 0031194	03/10-03/13/01 DW7VF1AM
		Dilution Factor: 1			MS Run #.....: 1072234	MDL.....: 0.40	
		Instrument ID...: M01					

(Continued on next page)

000043

## KENNEDY/JENKS CONSULTANTS

Client Sample ID: Build -2-AE-13-030901-1

## TOTAL Metals

Lot-Sample #....: E1C090309-006

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ORDER #
		LIMIT	UNITS					
Molybdenum	0.49 B	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AP	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30		
Nickel	20.6	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AQ	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30		
Lead	6.3	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AN	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.30		
Antimony	ND	6.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AF	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.20		
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AR	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.40		
Thallium	0.91 B	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AU	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.50		
Vanadium	58.1	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AV	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 0.10		
Zinc	71.2	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW7VF1AW	
		Dilution Factor: 1			Analysis Time...: 18:38	Analyst ID.....: 0031194		
		Instrument ID...: M01			MS Run #.....: 1072234	MDL.....: 1.0		
Prep Batch #....:	1069113							
Mercury	ND	0.10	mg/kg		SW846 7471A	03/13/01	DW7VF1A0	
		Dilution Factor: 1			Analysis Time...: 15:20	Analyst ID.....: 0210884		
		Instrument ID...: M04			MS Run #.....: 1069016	MDL.....: 0.020		

## NOTE(S) :

B Estimated result. Result is less than RL.

000044

# QC DATA ASSOCIATION SUMMARY

E1C090309

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
002	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
003	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
004	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
005	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234
006	SOLID	SW846 8015B		1071498	1071274
	SOLID	SW846 8015B		1072404	1072196
	SOLID	SW846 7471A		1069113	1069016
	SOLID	SW846 8260B		1072350	1072160
	SOLID	SW846 6010B		1069112	1072234

000045

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #....: E1C090309  
MB Lot-Sample #: E1C120000-498  
Analysis Date...: 03/14/01  
Dilution Factor: 1

Work Order #....: DW9T51AA  
Prep Date.....: 03/12/01  
Prep Batch #: 1071498  
Analyst ID.....: 356074

Matrix.....: SOLID  
Analysis Time..: 13:03  
Instrument ID.: G03

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
C8-C9	ND	10	mg/kg
C10-C11	ND	10	mg/kg
C12-C13	ND	10	mg/kg
C14-C15	ND	10	mg/kg
C16-C17	ND	10	mg/kg
C18-C19	ND	10	mg/kg
C20-C23	ND	10	mg/kg
C24-C27	ND	10	mg/kg
C28-C31	ND	10	mg/kg
C32-C35	ND	10	mg/kg
C36-C39	ND	10	mg/kg
C40+	ND	10	mg/kg
Total Carbon Chain Range	ND	10	mg/kg

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Benzo(a)pyrene	99	(60 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000046

**METHOD BLANK REPORT**

**GC/MS Volatiles**

**Client Lot #....:** E1C090309  
**MB Lot-Sample #:** E1C130000-350  
**Analysis Date..:** 03/12/01  
**Dilution Factor:** 1

**Work Order #....:** DXAPJ1AA  
**Prep Date.....:** 03/12/01  
**Prep Batch #....:** 1072350

**Matrix.....:** SOLID  
**Analysis Time..:** 10:56  
**Instrument ID..:** MSG

**Analyst ID.....:** 999998

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING LIMIT</b>	<b>UNITS</b>	<b>METHOD</b>
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Vinyl chloride	ND	10	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Acrolein	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Iodomethane	ND	10	ug/kg	SW846 8260B
Acetone	ND	25	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Acrylonitrile	ND	50	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Vinyl acetate	ND	10	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
2-Butanone	ND	25	ug/kg	SW846 8260B
Bromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Tetrahydrofuran	ND	20	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	25	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	25	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B

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**000047**

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: E1C090309

Work Order #....: DXAPJ1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	10	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
p-Isopropyltoluene	ND	5.0	ug/kg	SW846 8260B
Bromobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
n-Propylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
4-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
tert-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
sec-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
n-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B
<u>SURROGATE</u>				
	<u>PERCENT RECOVERY</u>		<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	95		(70 - 130)	
1,2-Dichloroethane-d4	88		(60 - 140)	
Toluene-d8	107		(70 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000048

**METHOD BLANK REPORT**

**GC Volatiles**

Client Lot #....: E1C090309  
MB Lot-Sample #: E1C130000-404  
  
Analysis Date...: 03/12/01  
Dilution Factor: 1

Work Order #....: DXAXR1AA  
  
Prep Date.....: 03/12/01  
Prep Batch #: 1072404  
  
Analyst ID.....: 001464

Matrix.....: SOLID  
  
Analysis Time..: 12:16  
Instrument ID..: G16

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
C6-C8	ND	1.0	mg/kg	SW846 8015B
<u>SURROGATE</u>	PERCENT	RECOVERY		
	RECOVERY	LIMITS		
a,a,a-Trifluorotoluene (TFT)	79	(60 - 130)		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000049**

**METHOD BLANK REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MB Lot-Sample #:</b> E1C100000-112 <b>Prep Batch #....:</b> 1069112						
Aluminum	ND	20.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1CD
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Antimony	ND	6.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AA
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Arsenic	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AC
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Barium	ND	2.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AD
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Beryllium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AE
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Cadmium	ND	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AF
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Chromium	ND	1.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AT
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Cobalt	ND	5.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AG
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Copper	ND	2.5	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AH
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Lead	0.32 B	0.50	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AJ
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	
Molybdenum	ND	4.0	mg/kg	SW846 6010B	03/10-03/13/01	DW8JG1AK
		Dilution Factor: 1				
		Analysis Time...: 17:41		Analyst ID.....: 003119	Instrument ID...: M01	

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**000050**

**METHOD BLANK REPORT****TOTAL Metals**

Client Lot #....: E1C090309

**Matrix.....: SOLID**

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>			<b>METHOD</b>	<b>PREPARATION-</b> <b>ANALYSIS DATE</b>	<b>WORK ORDER #</b>
		<b>LIMIT</b>	<b>UNITS</b>				
Nickel	ND	4.0	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AL
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	
Selenium	ND	0.50	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AM
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	
Silver	ND	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AN
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	
Thallium	ND	1.0	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AP
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	
Vanadium	ND	5.0	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AQ
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	
Zinc	ND	2.0	mg/kg		SW846 6010B	03/10-03/13/01	DW8JG1AR
		Dilution Factor: 1					
		Analysis Time...: 17:41			Analyst ID.....: 003119	Instrument ID...: M01	

**MB Lot-Sample #:** E1C100000-113 **Prep Batch #....:** 1069113

Mercury	ND	0.10	mg/kg	SW846 7471A	03/13/01	DW8JM1AA
		Dilution Factor: 1				
		Analysis Time...: 15:08		Analyst ID.....: 021088	Instrument ID...: M04	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

**000051**

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #....:** E1C090309      **Work Order #....:** DW9T51AC      **Matrix.....:** SOLID  
**LCS Lot-Sample#:** E1C120000-498  
**Prep Date.....:** 03/12/01      **Analysis Date...:** 03/14/01  
**Prep Batch #....:** 1071498      **Analysis Time...:** 13:41  
**Dilution Factor:** 1      **Instrument ID...:** G03  
**Analyst ID.....:** 356074

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>		
			<u>mg/kg</u>	<b>91</b>	<b>SW846 8015B</b>
<u>SURROGATE</u>			<u>PERCENT</u>	<u>RECOVERY</u>	
Benzo(a)pyrene			<u>RECOVERY</u>	<u>LIMITS</u>	
			101	(60 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000052

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: E1C090309      Work Order #....: DXAPJ1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: E1C130000-350  
 Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350      Analysis Time...: 12:41  
 Dilution Factor: 1      Instrument ID...: MSG  
 Analyst ID.....: 999998

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECOVERY</u>
1,1-Dichloroethene	<b>50.0</b>	<b>50.4</b>	ug/kg	101
Benzene	<b>50.0</b>	<b>43.1</b>	ug/kg	86
Trichloroethene	<b>50.0</b>	<b>51.7</b>	ug/kg	103
Toluene	<b>50.0</b>	<b>47.9</b>	ug/kg	96
Chlorobenzene	<b>50.0</b>	<b>48.9</b>	ug/kg	98

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	100	(70 - 130)
1,2-Dichloroethane-d4	84	(60 - 140)
Toluene-d8	107	(70 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000053

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #....: E1C090309      Work Order #....: DXAXR1AC      Matrix.....: SOLID  
LCS Lot-Sample#: E1C130000-404  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #:....: 1072404      Analysis Time...: 11:48  
Dilution Factor: 1      Instrument ID...: G16  
Analyst ID.....: 001464

PARAMETER	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
TPH (as Gasoline)	5.00	5.29	mg/kg	106	SW846 8015B
SURROGATE		PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>		
a,a,a-Trifluorotoluene (TFT)		113	(60 - 130)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000054

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

Client Lot #....: E1C090309

**Matrix.....: SOLID**

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#: E1C100000-112 Prep Batch #....: 1069112</b>							
Antimony	50.0	50.7	mg/kg	101	SW846 6010B	03/10-03/13/01	DW8JG1AU
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Arsenic	200	197	mg/kg	98	SW846 6010B	03/10-03/13/01	DW8JG1AV
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Barium	200	208	mg/kg	104	SW846 6010B	03/10-03/13/01	DW8JG1AW
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Beryllium	5.00	5.59	mg/kg	112	SW846 6010B	03/10-03/13/01	DW8JG1AX
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Cadmium	5.00	5.31	mg/kg	106	SW846 6010B	03/10-03/13/01	DW8JG1A0
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Cobalt	50.0	54.3	mg/kg	109	SW846 6010B	03/10-03/13/01	DW8JG1A1
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Copper	25.0	25.9	mg/kg	104	SW846 6010B	03/10-03/13/01	DW8JG1A2
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Lead	50.0	50.6	mg/kg	101	SW846 6010B	03/10-03/13/01	DW8JG1A3
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Molybdenum	100	105	mg/kg	105	SW846 6010B	03/10-03/13/01	DW8JG1A4
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01
Nickel	50.0	52.7	mg/kg	105	SW846 6010B	03/10-03/13/01	DW8JG1A5
			Dilution Factor:	1			
			Analysis Time...:	17:48		Analyst ID.....: 003119	Instrument ID...: M01

(Continued on next page)

**000055**

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

PARAMETER	SPIKE	MEASURED	UNITS	PERCNT	METHOD	PREPARATION-	WORK
	AMOUNT	AMOUNT		RECVRY		ANALYSIS DATE	ORDER #
Selenium	200	187	mg/kg	93	SW846 6010B	03/10-03/13/01	DW8JG1A6
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Silver	5.00	5.08	mg/kg	102	SW846 6010B	03/10-03/13/01	DW8JG1A7
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Thallium	200	207	mg/kg	103	SW846 6010B	03/10-03/13/01	DW8JG1A8
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Vanadium	50.0	53.0	mg/kg	106	SW846 6010B	03/10-03/13/01	DW8JG1A9
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Zinc	50.0	52.8	mg/kg	106	SW846 6010B	03/10-03/13/01	DW8JG1CA
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Chromium	20.0	22.0	mg/kg	110	SW846 6010B	03/10-03/13/01	DW8JG1CC
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
Aluminum	200	191	mg/kg	95	SW846 6010B	03/10-03/13/01	DW8JG1CE
			Dilution Factor: 1				
			Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01	
<b>LCS Lot-Sample#:</b> E1C100000-113 <b>Prep Batch #....:</b> 1069113							
Mercury	0.833	0.832	mg/kg	100	SW846 7471A	03/13/01	DW8JM1AC
			Dilution Factor: 1				
			Analysis Time...: 15:10		Analyst ID.....: 021088	Instrument ID...: M04	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000056**

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #....: E1C090309      Work Order #....: DW9T51AC      Matrix.....: SOLID  
LCS Lot-Sample#: E1C120000-498  
Prep Date.....: 03/12/01      Analysis Date...: 03/14/01  
Prep Batch #....: 1071498      Analysis Time...: 13:41  
Dilution Factor: 1      Instrument ID...: G03  
Analyst ID.....: 356074

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Diesel)	91	(60 - 130)	<b>SW846 8015B</b>
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Benzo (a)pyrene	101	(60 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000057

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: E1C090309      Work Order #....: DXAPJ1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: E1C130000-350  
 Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
 Prep Batch #....: 1072350      Analysis Time...: 12:41  
 Dilution Factor: 1      Instrument ID...: MSG  
 Analyst ID.....: 999998

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
1,1-Dichloroethene	101	(60 - 150)	SW846 8260B
Benzene	86	(70 - 140)	SW846 8260B
Trichloroethene	103	(70 - 130)	SW846 8260B
Toluene	96	(70 - 130)	SW846 8260B
Chlorobenzene	98	(70 - 130)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	100	(70 - 130)
1,2-Dichloroethane-d4	84	(60 - 140)
Toluene-d8	107	(70 - 130)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000058

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E1C090309      Work Order #....: DXAXR1AC      Matrix.....: SOLID  
LCS Lot-Sample#: E1C130000-404  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #....: 1072404      Analysis Time...: 11:48  
Dilution Factor: 1      Instrument ID...: G16  
Analyst ID.....: 001464

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
<u>RECOVERY</u>	<u>LIMITS</u>		
<b>TPH (as Gasoline)</b>	<b>106</b>	(80 - 140)	<b>SW846 8015B</b>
<hr/>			
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
a,a,a-Trifluorotoluene (TFT)	113		(60 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000059

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	E1C100000-112	Prep Batch #....:	1069112		
Antimony	101	(75 - 115)	SW846 6010B	03/10-03/13/01	DW8JG1AU
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Arsenic	98	(75 - 115)	SW846 6010B	03/10-03/13/01	DW8JG1AV
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Barium	104	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1AW
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Beryllium	112	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1AX
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Cadmium	106	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A0
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Cobalt	109	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A1
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Copper	104	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A2
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Lead	101	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A3
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Molybdenum	105	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A4
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01
Nickel	105	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A5
		Dilution Factor: 1			
		Analysis Time...: 17:48		Analyst ID.....: 003119	Instrument ID...: M01

(Continued on next page)

**000060**

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

<b>Client Lot #....:</b>	E1C090309				<b>Matrix.....:</b>	SOLID
<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>		
Selenium	93	(70 - 115)	SW846 6010B	<u>ANALYSIS DATE</u>	03/10-03/13/01	<u>WORK ORDER #</u>
		Dilution Factor: 1				DW8JG1A6
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Silver	102	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A7	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Thallium	103	(75 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A8	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Vanadium	106	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1A9	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Zinc	106	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CA	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Chromium	110	(85 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CC	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
Aluminum	95	(80 - 120)	SW846 6010B	03/10-03/13/01	DW8JG1CE	
		Dilution Factor: 1				
		Analysis Time...: 17:48		Analyst ID.....:	003119	Instrument ID...: M01
<b>LCS Lot-Sample#:</b>	<b>E1C100000-113   Prep Batch #....:</b>				<b>1069113</b>	
Mercury	100	(85 - 115)	SW846 7471A	03/13/01	DW8JM1AC	
		Dilution Factor: 1				
		Analysis Time...: 15:10		Analyst ID.....:	021088	Instrument ID...: M04

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**000061**

**MATRIX SPIKE SAMPLE DATA REPORT**

**GC/MS Volatiles**

Client Lot #....: E1C090309	Work Order #....: DW5RK1AE-MS	Matrix.....: SOLID
MS Lot-Sample #: E1C080299-018		DW5RK1AF-MSD
Date Sampled....: 03/07/01 15:10	Date Received...: 03/08/01 17:20	MS Run #.....: 1072160
Prep Date.....: 03/12/01	Analysis Date...: 03/12/01	
Prep Batch #....: 1072350	Analysis Time...: 15:03	
Dilution Factor: 1	Analyst ID.....: 999998	Instrument ID.: MSG

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCENT		
	AMOUNT	AMT	AMOUNT		RECOVERY	RPD	METHOD
1,1-Dichloroethene	ND	50.0	46.8	ug/kg	94		SW846 8260B
	ND	50.0	51.2	ug/kg	102	9.0	SW846 8260B
Benzene	ND	50.0	43.9	ug/kg	88		SW846 8260B
	ND	50.0	48.1	ug/kg	96	9.0	SW846 8260B
Trichloroethene	ND	50.0	46.3	ug/kg	93		SW846 8260B
	ND	50.0	49.0	ug/kg	98	5.6	SW846 8260B
Toluene	ND	50.0	42.6	ug/kg	85		SW846 8260B
	ND	50.0	44.8	ug/kg	90	4.9	SW846 8260B
Chlorobenzene	ND	50.0	43.8	ug/kg	88		SW846 8260B
	ND	50.0	45.8	ug/kg	92	4.3	SW846 8260B

SURROGATE	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Bromofluorobenzene	98	(70 - 130)	
	97	(70 - 130)	
1,2-Dichloroethane-d4	95	(60 - 140)	
	98	(60 - 140)	
Toluene-d8	107	(70 - 130)	
	106	(70 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled....:** 03/09/01

**Date Received..:** 03/09/01 11:05

PARAMETER	SAMPLE SPIKE MEASURED			PERCNT			PREPARATION-	WORK		
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD				
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069112										
Aluminum										
	5590	200	6040	NC	mg/kg		SW846 6010B	03/10-03/13/01 DW6501EN		
	5590	200	5690	NC	mg/kg		SW846 6010B	03/10-03/13/01 DW6501EP		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					
Antimony										
	0.35	50.0	41.5	mg/kg	82		SW846 6010B	03/10-03/13/01 DW6501D9		
	0.35	50.0	41.4	mg/kg	82	0.39	SW846 6010B	03/10-03/13/01 DW6501EA		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					
Arsenic										
	0.82	200	190	mg/kg	95		SW846 6010B	03/10-03/13/01 DW6501DT		
	0.82	200	189	mg/kg	94	0.51	SW846 6010B	03/10-03/13/01 DW6501DU		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					
Barium										
	75.5	200	274	mg/kg	100		SW846 6010B	03/10-03/13/01 DW6501ER		
	75.5	200	268	mg/kg	96	2.3	SW846 6010B	03/10-03/13/01 DW6501ET		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					
Beryllium										
	0.64	5.00	6.04	mg/kg	108		SW846 6010B	03/10-03/13/01 DW6501DV		
	0.64	5.00	6.00	mg/kg	107	0.53	SW846 6010B	03/10-03/13/01 DW6501DW		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					
Cadmium										
	0.25	5.00	5.16	mg/kg	98		SW846 6010B	03/10-03/13/01 DW6501DX		
	0.25	5.00	5.20	mg/kg	99	0.61	SW846 6010B	03/10-03/13/01 DW6501D0		
				Dilution Factor:	1					
				Analysis Time...	19:50	Instrument ID...: M01		Analyst ID.....: 003119		
				MS Run #.....:	1072234					

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**000063**

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

Client Lot #....: E1C090309  
 Date Sampled...: 03/09/01

Matrix.....: SOLID

Date Received..: 03/09/01 11:05

PARAMETER	SAMPLE	SPIKE	MEASURED	UNITS	PERCNT			METHOD	PREPARATION-	WORK
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	ANALYSIS		DATE	ORDER #
<b>Chromium</b>										
	9.2	20.0	29.9	mg/kg	104		SW846	6010B	03/10-03/13/01	DW6501D1
	9.2	20.0	30.2	mg/kg	105	0.69	SW846	6010B	03/10-03/13/01	DW6501D2
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Cobalt</b>										
	0.42	50.0	52.0	mg/kg	103		SW846	6010B	03/10-03/13/01	DW6501EV
	0.42	50.0	51.9	mg/kg	103	0.17	SW846	6010B	03/10-03/13/01	DW6501EW
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Copper</b>										
	166	25.0	196	mg/kg	119		SW846	6010B	03/10-03/13/01	DW6501D3
	166	25.0	183 N	mg/kg	70	6.5	SW846	6010B	03/10-03/13/01	DW6501D4
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Lead</b>										
	9.3	50.0	56.4	mg/kg	94		SW846	6010B	03/10-03/13/01	DW6501D7
	9.3	50.0	56.5	mg/kg	94	0.02	SW846	6010B	03/10-03/13/01	DW6501D8
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Molybdenum</b>										
	1.9	100	102	mg/kg	100		SW846	6010B	03/10-03/13/01	DW6501E0
	1.9	100	101	mg/kg	100	0.15	SW846	6010B	03/10-03/13/01	DW6501E1
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Nickel</b>										
	2.6	50.0	52.4	mg/kg	100		SW846	6010B	03/10-03/13/01	DW6501D5
	2.6	50.0	52.5	mg/kg	100	0.04	SW846	6010B	03/10-03/13/01	DW6501D6
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									
<b>Selenium</b>										
	1.2	200	182	mg/kg	90		SW846	6010B	03/10-03/13/01	DW6501EC
	1.2	200	182	mg/kg	90	0.18	SW846	6010B	03/10-03/13/01	DW6501ED
	Dilution Factor: 1				Analysis Time...: 19:50				Instrument ID...: M01	
									Analyst ID.....: 003119	
	MS Run #.....: 1072234									

**000064**

BOE-C6-0211868

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled...:** 03/09/01

**Date Received..:** 03/09/01 11:05

PARAMETER	SAMPLE	SPIKE	MEASURED	UNITS	PERCNT		METHOD	PREPARATION-	WORK
	AMOUNT	AMT	AMOUNT		RECVRY	RPD		ANALYSIS DATE	ORDER #
<b>Silver</b>									
	1.4	5.00	6.09	mg/kg	94		SW846 6010B	03/10-03/13/01	DW6501DQ
	1.4	5.00	6.00	mg/kg	92	1.4	SW846 6010B	03/10-03/13/01	DW6501DR
	Dilution Factor: 1								
	Analysis Time...: 19:50      Instrument ID...: M01      Analyst ID.....: 003119								
	MS Run #.....: 1072234								
<b>Thallium</b>									
	ND	200	197	mg/kg	98		SW846 6010B	03/10-03/13/01	DW6501EE
	ND	200	196	mg/kg	98	0.64	SW846 6010B	03/10-03/13/01	DW6501EF
	Dilution Factor: 1								
	Analysis Time...: 19:50      Instrument ID...: M01      Analyst ID.....: 003119								
	MS Run #.....: 1072234								
<b>Vanadium</b>									
	5.6	50.0	56.0	mg/kg	101		SW846 6010B	03/10-03/13/01	DW6501EK
	5.6	50.0	55.5	mg/kg	100	0.88	SW846 6010B	03/10-03/13/01	DW6501EL
	Dilution Factor: 1								
	Analysis Time...: 19:50      Instrument ID...: M01      Analyst ID.....: 003119								
	MS Run #.....: 1072234								
<b>Zinc</b>									
	156	50.0	202	mg/kg	92		SW846 6010B	03/10-03/13/01	DW6501EG
	156	50.0	195 N	mg/kg	76	3.9	SW846 6010B	03/10-03/13/01	DW6501EH
	Dilution Factor: 1								
	Analysis Time...: 19:50      Instrument ID...: M01      Analyst ID.....: 003119								
	MS Run #.....: 1072234								

**MS Lot-Sample #:** E1C090238-004    **Prep Batch #....:** 1069113

**Mercury**

1.4	0.167	0.490	NC	mg/kg	SW846 7471A	03/13/01	DW6501C4
1.4	0.167	0.430	NC	mg/kg	SW846 7471A	03/13/01	DW6501C5
Dilution Factor: 1							
Analysis Time...: 15:33      Instrument ID...: M04      Analyst ID.....: 021088							
MS Run #.....: 1069016							

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

**000065**

## MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCENT			
	AMOUNT	AMT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
TPH (as Gasoline)	ND	5.00	4.95	mg/kg	99		SW846 8015B
	ND	5.00	4.96	mg/kg	99	0.23	SW846 8015B
SURROGATE			PERCENT			RECOVERY	
a,a,a-Trifluorotoluene			RECOVERY			LIMITS	
(TFT)			110			(60 - 130)	
			111			(60 - 130)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print** denotes control parameters

000066

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #....: E1C090309      Work Order #....: DW7181A2-MS      Matrix.....: SOLID  
MS Lot-Sample #: E1C090323-043      DW7181A3-MSD  
Date Sampled...: 03/09/01 14:30 Date Received...: 03/09/01 16:45 MS Run #.....: 1071274  
Prep Date.....: 03/12/01 Analysis Date...: 03/14/01  
Prep Batch #....: 1071498 Analysis Time...: 19:32  
Dilution Factor: 1 Analyst ID.....: 356074      Instrument ID...: G03

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCENT		METHOD
	AMOUNT	AMT	AMOUNT		RECOVERY	RPD	
TPH (as Diesel)	ND	250	176	mg/kg	70		SW846 8015B
	ND	250	218	mg/kg	87	21	SW846 8015B

SURROGATE	PERCENT		LIMITS
	RECOVERY		
Benzo(a)pyrene	76		(60 - 130)
	95		(60 - 130)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000067

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**GC/MS Volatiles**

Client Lot #....: E1C090309	Work Order #....: DW5RK1AE-MS	Matrix.....: SOLID
MS Lot-Sample #: E1C080299-018		DW5RK1AF-MSD
Date Sampled....: 03/07/01 15:10	Date Received...: 03/08/01 17:20	MS Run #.....: 1072160
Prep Date.....: 03/12/01	Analysis Date...: 03/12/01	
Prep Batch #....: 1072350	Analysis Time...: 15:03	
Dilution Factor: 1	Analyst ID.....: 999998	Instrument ID...: MSG

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
<b>1, 1-Dichloroethene</b>	<b>94</b>	(60 - 150)			<b>SW846 8260B</b>
	102	(60 - 150)	9.0	(0-30)	<b>SW846 8260B</b>
<b>Benzene</b>	<b>88</b>	(70 - 140)			<b>SW846 8260B</b>
	96	(70 - 140)	9.0	(0-30)	<b>SW846 8260B</b>
<b>Trichloroethene</b>	<b>93</b>	(70 - 130)			<b>SW846 8260B</b>
	98	(70 - 130)	5.6	(0-30)	<b>SW846 8260B</b>
<b>Toluene</b>	<b>85</b>	(70 - 130)			<b>SW846 8260B</b>
	90	(70 - 130)	4.9	(0-30)	<b>SW846 8260B</b>
<b>Chlorobenzene</b>	<b>88</b>	(70 - 130)			<b>SW846 8260B</b>
	92	(70 - 130)	4.3	(0-30)	<b>SW846 8260B</b>
<hr/>					
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
<b>Bromofluorobenzene</b>	<b>98</b>	(70 - 130)			
	97	(70 - 130)			
<b>1, 2-Dichloroethane-d4</b>	<b>95</b>	(60 - 140)			
	98	(60 - 140)			
<b>Toluene-d8</b>	<b>107</b>	(70 - 130)			
	106	(70 - 130)			

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**000068**

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled....:** 03/09/01

**Date Received...:** 03/09/01 11:05

PARAMETER	PERCENT	RECOVERY	RPD			PREPARATION-	WORK
	RECOVERY	LIMITS	RPD	LIMITS	METHOD	ANALYSIS DATE	ORDER #
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069112							
Aluminum	NC	(80 - 120)		SW846 6010B		03/10-03/13/01 DW6501EN	
	NC	(80 - 120)	(0-25)	SW846 6010B		03/10-03/13/01 DW6501EP	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Antimony	82	(75 - 115)		SW846 6010B		03/10-03/13/01 DW6501D9	
	82	(75 - 115) 0.39	(0-25)	SW846 6010B		03/10-03/13/01 DW6501EA	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Arsenic	95	(75 - 115)		SW846 6010B		03/10-03/13/01 DW6501DT	
	94	(75 - 115) 0.51	(0-25)	SW846 6010B		03/10-03/13/01 DW6501DU	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Barium	100	(80 - 120)		SW846 6010B		03/10-03/13/01 DW6501ER	
	96	(80 - 120) 2.3	(0-25)	SW846 6010B		03/10-03/13/01 DW6501ET	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Beryllium	108	(80 - 120)		SW846 6010B		03/10-03/13/01 DW6501DV	
	107	(80 - 120) 0.53	(0-25)	SW846 6010B		03/10-03/13/01 DW6501DW	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Cadmium	98	(80 - 120)		SW846 6010B		03/10-03/13/01 DW6501DX	
	99	(80 - 120) 0.61	(0-25)	SW846 6010B		03/10-03/13/01 DW6501D0	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					
Chromium	104	(85 - 120)		SW846 6010B		03/10-03/13/01 DW6501D1	
	105	(85 - 120) 0.69	(0-25)	SW846 6010B		03/10-03/13/01 DW6501D2	
		Dilution Factor: 1					
		Analysis Time...: 19:50		Instrument ID...: M01		Analyst ID.....: 003119	
		MS Run #.....: 1072234					

(Continued on next page)

**000069**

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** E1C090309

**Matrix.....:** SOLID

**Date Sampled....:** 03/09/01

**Date Received...:** 03/09/01 11:05

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Cobalt	103	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501EV
	103	(80 - 120)	0.17	(0-25)	SW846 6010B	03/10-03/13/01	DW6501EW
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Copper	119	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501D3
	70 N	(80 - 120)	6.5	(0-25)	SW846 6010B	03/10-03/13/01	DW6501D4
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Lead	94	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501D7
	94	(80 - 120)	0.02	(0-25)	SW846 6010B	03/10-03/13/01	DW6501D8
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Molybdenum	100	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501E0
	100	(80 - 120)	0.15	(0-25)	SW846 6010B	03/10-03/13/01	DW6501E1
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Nickel	100	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501D5
	100	(80 - 120)	0.04	(0-25)	SW846 6010B	03/10-03/13/01	DW6501D6
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Selenium	90	(70 - 115)			SW846 6010B	03/10-03/13/01	DW6501EC
	90	(70 - 115)	0.18	(0-25)	SW846 6010B	03/10-03/13/01	DW6501ED
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Silver	94	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501DQ
	92	(80 - 120)	1.4	(0-25)	SW846 6010B	03/10-03/13/01	DW6501DR
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					
Thallium	98	(75 - 120)			SW846 6010B	03/10-03/13/01	DW6501EE
	98	(75 - 120)	0.64	(0-25)	SW846 6010B	03/10-03/13/01	DW6501EF
		Dilution Factor: 1					
		Analysis Time...: 19:50			Instrument ID...: M01		Analyst ID.....: 003119
		MS Run #.....: 1072234					

(Continued on next page)

**000070**

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

Client Lot #....: E1C090309

Matrix.....: SOLID

Date Sampled...: 03/09/01

Date Received..: 03/09/01 11:05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Vanadium	101	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501EK
	100	(80 - 120)	0.88	(0-25)	SW846 6010B	03/10-03/13/01	DW6501EL
		Dilution Factor: 1					
					Analysis Time...: 19:50	Instrument ID...: M01	Analyst ID.....: 003119
					MS Run #.....: 1072234		
Zinc	92	(80 - 120)			SW846 6010B	03/10-03/13/01	DW6501EG
	76 N	(80 - 120)	3.9	(0-25)	SW846 6010B	03/10-03/13/01	DW6501EH
		Dilution Factor: 1					
					Analysis Time...: 19:50	Instrument ID...: M01	Analyst ID.....: 003119
					MS Run #.....: 1072234		
<b>MS Lot-Sample #:</b> E1C090238-004 <b>Prep Batch #....:</b> 1069113							
Mercury	NC	(80 - 120)			SW846 7471A	03/13/01	DW6501C4
	NC	(80 - 120)	(0-20)		SW846 7471A	03/13/01	DW6501C5
		Dilution Factor: 1					
					Analysis Time...: 15:33	Instrument ID...: M04	Analyst ID.....: 021088
					MS Run #.....: 1069016		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

**000071**

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E1C090309      Work Order #....: DW7TV1A2-MS      Matrix.....: SOLID  
MS Lot-Sample #: E1C090309-001      DW7TV1A3-MSD  
Date Sampled...: 03/09/01 10:00 Date Received...: 03/09/01 15:35 MS Run #.....: 1072196  
Prep Date.....: 03/12/01      Analysis Date...: 03/12/01  
Prep Batch #....: 1072404      Analysis Time...: 16:13  
Dilution Factor: 1      Analyst ID.....: 001464      Instrument ID..: G16

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS			
TPH (as Gasoline)	99	(80 - 140)			SW846 8015B
	99	(80 - 140)	0.23	(0-40)	SW846 8015B
SURROGATE	PERCENT	RECOVERY			
	RECOVERY	LIMITS			
a,a,a-Trifluorotoluene (TFT)	110			(60 - 130)	
	111			(60 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000072

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

**Client Lot #....:** E1C090309      **Work Order #....:** DW7181A2-MS      **Matrix.....:** SOLID  
**MS Lot-Sample #:** E1C090323-043      DW7181A3-MSD  
**Date Sampled....:** 03/09/01 14:30      **Date Received...:** 03/09/01 16:45      **MS Run #.....:** 1071274  
**Prep Date.....:** 03/12/01      **Analysis Date...:** 03/14/01  
**Prep Batch #....:** 1071498      **Analysis Time...:** 19:32  
**Dilution Factor:** 1      **Analyst ID.....:** 356074      **Instrument ID..:** G03

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>		<u>LIMITS</u>	
<b>TPH (as Diesel)</b>	<b>70</b>	<b>(60 - 130)</b>			<b>SW846 8015B</b>
	<b>87</b>	<b>(60 - 130)</b>	<b>21</b>	<b>(0-35)</b>	<b>SW846 8015B</b>

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
<b>Benzo(a)pyrene</b>	<b>76</b>	<b>(60 - 130)</b>
	<b>95</b>	<b>(60 - 130)</b>

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

000073

# Subcontracted

# Analysis

000074



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## LABORATORY REPORT

Prepared For: STL Los Angeles  
1721 S. Grand Avenue  
Santa Ana, CA 92705

Attention: Diane Suzuki  
Project: E1C090309

Sampled: 03/09/01  
Received: 03/12/01  
Reported: 03/14/01

*This laboratory report is confidential and is intended for the sole use of  
Del Mar Analytical and its client. This entire report was reviewed and approved for release.*

CA ELAP Certificate #1169  
AZ DHS License #AZ0062

A handwritten signature in black ink, appearing to read "Cliffon J. Kiser".

Del Mar Analytical, Colton  
Clifton J. Kiser  
Project Manager

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0000025

BOE-C6-0211879



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STL Los Angeles  
 1721 S. Grand Avenue  
 Santa Ana, CA 92705  
 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01  
 Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Reporting Batch	Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
				ug/kg	ug/kg			
<b>Sample ID: CKC0083-01 (SOURCE-J-1-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	1000	ND	20	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	1000	ND	20	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	40	ND	20	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	400	ND	20	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	100	ND	20	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						76.1 %		
<b>Sample ID: CKC0083-02 (SOURCE-J-2-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	200	ND	10	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						77.0 %		

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 Clifton J. Kiser  
 project Manager

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STL Los Angeles  
 1721 S. Grand AVenue  
 Santa Ana, CA 92705  
 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Reporting Batch	Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
			ug/kg	ug/kg				
<b>Sample ID: CKC0083-03 (SOURCE-J-3-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	500	ND	10	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	20	ND	10	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	200	ND	10	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	50	ND	10	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						99.4 %		
<b>Sample ID: CKC0083-04 (SOURCE-I-1-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	5000	ND	100	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	5000	ND	100	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	200	ND	100	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	200	350	100	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	200	320	100	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	200	ND	100	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	500	ND	100	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	2000	ND	100	3/13/01	3/13/01	
Pyrene	EPA 8310	C1C1306	500	520	100	3/13/01	3/13/01	
<i>Surrogate: 2-Methylanthracene (35-115%)</i>						815 %		ZZZZ4

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STL Los Angeles  
1721 S. Grand Avenue  
Santa Ana, CA 92705  
Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
				ug/kg		ug/kg		
<b>Sample ID: CKC0083-05 (SOURCE-I-2-030901 - Soil)</b>								
Acenaphthene	EPA 8310	C1C1306	50	ND	1	3/13/01	3/13/01	
Acenaphthylene	EPA 8310	C1C1306	50	ND	1	3/13/01	3/13/01	
Anthracene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(a)anthracene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(a)pyrene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Benzo(b)fluoranthene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Benzo(g,h,i)perylene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Benzo(k)fluoranthene	EPA 8310	C1C1306	2.0	ND	1	3/13/01	3/13/01	
Chrysene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Dibenz(a,h)anthracene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Fluoranthene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Fluorene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Indeno(1,2,3-cd)pyrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Naphthalene	EPA 8310	C1C1306	20	ND	1	3/13/01	3/13/01	
Phenanthrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Tyrene	EPA 8310	C1C1306	5.0	ND	1	3/13/01	3/13/01	
Surrogate: 2-Methylanthracene (35-115%)						87.6 %		

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Clifton J. Kiser  
Project Manager

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 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

### METHOD BLANK/QC DATA

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: C1C1306 Extracted: 03/13/01

**Blank Analyzed: 03/13/01 (C1C1306-BLK1)**

Acenaphthene	ND	50	ug/kg						
Acenaphthylene	ND	50	ug/kg						
Anthracene	ND	2.0	ug/kg						
Benzo(a)anthracene	ND	2.0	ug/kg						
Benzo(a)pyrene	ND	2.0	ug/kg						
Benzo(b)fluoranthene	ND	5.0	ug/kg						
Benzo(g,h,i)perylene	ND	5.0	ug/kg						
Benzo(k)fluoranthene	ND	2.0	ug/kg						
Chrysene	ND	5.0	ug/kg						
Dibenz(a,h)anthracene	ND	5.0	ug/kg						
Fluorene	ND	5.0	ug/kg						
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg						
Naphthalene	ND	20	ug/kg						
Phenanthrene	ND	5.0	ug/kg						
Pyrene	ND	5.0	ug/kg						
Surrogate: 2-Methylnanthracene	7.04		ug/kg	8.00		88.0	35-115		

**LCS Analyzed: 03/13/01 (C1C1306-BS1)**

Acenaphthene	71.5	50	ug/kg	80.0		89.4	45-115		
Acenaphthylene	149	50	ug/kg	160		93.1	50-115		
Anthracene	7.25	2.0	ug/kg	8.00		90.6	55-115		
Benzo(a)anthracene	8.07	2.0	ug/kg	8.00		101	65-115		
Benzo(a)pyrene	7.33	2.0	ug/kg	8.00		91.6	55-115		
Benzo(b)fluoranthene	15.0	5.0	ug/kg	16.0		93.8	65-115		
Benzo(g,h,i)perylene	15.5	5.0	ug/kg	16.0		96.9	60-115		
Benzo(k)fluoranthene	7.23	2.0	ug/kg	8.00		90.4	65-115		
Chrysene	7.26	5.0	ug/kg	8.00		90.8	65-115		
Dibenz(a,h)anthracene	14.1	5.0	ug/kg	16.0		88.1	60-115		
Fluoranthene	15.2	5.0	ug/kg	16.0		95.0	65-115		
Fluorene	14.9	5.0	ug/kg	16.0		93.1	55-115		
Indeno(1,2,3-cd)pyrene	7.23	5.0	ug/kg	8.00		90.4	55-115		
Naphthalene	66.9	20	ug/kg	80.0		83.6	45-115		
Phenanthrene	7.19	5.0	ug/kg	8.00		89.9	55-120		
Pyrene	7.44	5.0	ug/kg	8.00		93.0	55-115		

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Clifton J. Kiser  
 Project Manager

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STL Los Angeles  
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 Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

### METHOD BLANK/QC DATA

### POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: C1C1306 Extracted: 03/13/01

.CS Analyzed: 03/13/01 (C1C1306-BS1)

Surrogate: 2-Methylnaphthalene 7.27 ug/kg 8.00 90.9 35-115

Matrix Spike Analyzed: 03/13/01 (C1C1306-MS1)

Acenaphthene	67.5	50	ug/kg	80.0	ND	84.4	40-115			
Acenaphthylene	139	50	ug/kg	160	ND	86.9	35-130			
Anthracene	6.53	2.0	ug/kg	8.00	ND	79.3	40-115			
Benzo(a)anthracene	6.01	2.0	ug/kg	8.00	ND	75.1	45-130			
Benzo(a)pyrene	5.22	2.0	ug/kg	8.00	ND	65.2	50-115			
Benzo(b)fluoranthene	8.58	5.0	ug/kg	16.0	ND	53.6	40-130			
Benzo(g,h,i)perylene	5.32	5.0	ug/kg	16.0	ND	33.3	45-115			MX
Benzo(k)fluoranthene	3.49	2.0	ug/kg	8.00	ND	43.6	40-125			
Chrysene	5.74	5.0	ug/kg	8.00	ND	71.7	45-125			
Dibenz(a,h)anthracene	ND	5.0	ug/kg	16.0	ND	8.12	25-130			MX
Fluoranthene	19.7	5.0	ug/kg	16.0	ND	121	50-135			
Fluorene	13.9	5.0	ug/kg	16.0	ND	81.2	35-120			
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg	8.00	ND	37.0	40-120			MX
Phthalene	72.8	20	ug/kg	80.0	ND	84.5	30-115			
phenanthrene	12.9	5.0	ug/kg	8.00	ND	161	30-160			MX
Pyrene	13.6	5.0	ug/kg	8.00	ND	170	20-165			MX
Surrogate: 2-Methylnaphthalene	5.34		ug/kg	8.00		66.8	35-115			

Matrix Spike Dup Analyzed: 03/13/01 (C1C1306-MSD1)

Acenaphthene	68.6	50	ug/kg	80.0	ND	85.7	40-115	1.62	25	
Acenaphthylene	141	50	ug/kg	160	ND	88.1	35-130	1.43	25	
Anthracene	5.66	2.0	ug/kg	8.00	ND	68.4	40-115	14.3	25	
Benzo(a)anthracene	2.69	2.0	ug/kg	8.00	ND	33.6	45-130	76.3	20	MX
Benzo(a)pyrene	ND	2.0	ug/kg	8.00	ND	11.4	50-115	141	20	MX
Benzo(b)fluoranthene	ND	5.0	ug/kg	16.0	ND	19.2	40-130	94.6	25	MX
Benzo(g,h,i)perylene	ND	5.0	ug/kg	16.0	ND	3.82	45-115	159	20	MX
Benzo(k)fluoranthene	ND	2.0	ug/kg	8.00	ND	15.0	40-125	97.7	25	MX
Chrysene	ND	5.0	ug/kg	8.00	ND	31.4	45-125	78.3	30	MX
Dibenz(a,h)anthracene	ND	5.0	ug/kg	16.0	ND	2.54	25-130	105	30	MX
Fluoranthene	12.1	5.0	ug/kg	16.0	ND	73.5	50-135	47.8	25	MX
Fluorene	14.2	5.0	ug/kg	16.0	ND	83.1	35-120	2.14	20	
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg	8.00	ND	3.62	40-120	164	20	MX

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 Project Manager

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1721 S. Grand Avenue  
Santa Ana, CA 92705  
Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

### METHOD BLANK/QC DATA

## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: C1C1306 Extracted: 03/13/01</u>										
<b>Matrix Spike Dup Analyzed: 03/13/01 (C1C1306-MSD1)</b>										
<b>Source: CKC0076-03</b>										
Naphthalene	71.9	20	ug/kg	80.0	ND	83.4	30-115	1.24	25	
Phenanthrene	8.44	5.0	ug/kg	8.00	ND	105	30-160	41.8	30	MX
Tyrene	6.46	5.0	ug/kg	8.00	ND	80.8	20-165	71.2	20	MX
Surrogate: 2-Methylnanthracene	4.82		ug/kg	8.00		60.3	35-115			

Del Mar Analytical, Colton  
Clifton J. Kiser  
Project Manager

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**000081**

BOE-C6-0211885



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Santa Ana, CA 92705  
Attention: Diane Suzuki

Client Project ID: E1C090309

Report Number: CKC0083

Sampled:03/09/01

Received:03/12/01

## DATA QUALIFIERS AND DEFINITIONS

- MX** The MS and/or MSD were outside of the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- ZZZZ4** The sample required a dilution due to high analyte concentration. Because of this dilution, the surrogate spike concentration was reduced to a level where the recovery calculation does not provide useful information.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- NR** Not reported.
- RPD** Relative Percent Difference

**Del Mar Analytical, Colton**  
Clifton J. Kiser  
Project Manager

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**BOE-C6-0211886**



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BOE-C6-0211887